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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 11

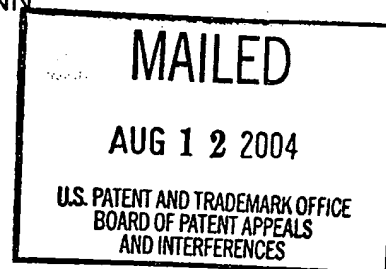
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NAUM V. GITIS and VICTOR DUNN

Appeal No. 2003-1173
Application No. 09/991,855

ON BRIEF



Before JERRY SMITH, FLEMING, and BLANKENSHIP, Administrative Patent Judges.
BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 5-11, 15, 16, 20, 21, 29-40, 48-50, 54-61, 63, 64, and 66-70.

We affirm.

BACKGROUND

The invention is directed to a slider for magnetic recording heads. According to appellants, the slider is shaped to minimize debris accumulation in its magnetic recording environment. Representative claims 5 and 70 are reproduced below.

5. A slider for supporting a magnetic transducer above the surface of a rotating disk medium, said slider comprising:

a body;

a plurality of rail members extending outward from said body in a direction towards said medium, each of said rail members having a leading and a trailing edge with said leading edge facing in the general direction of relative motion between said transducer and said medium, and wherein said leading edge has a narrower width as compared to said trailing edge, extends to said body, is spaced from outer side surfaces of said body, and is not part of a flat surface;

each of said rail members also having an air-bearing surface which is alternately brought into contact with and separated from said surface of said medium, said air-bearing surface being generally parallel to said surface of said medium.

70. A slider comprising:

a transducer for transferring information to and from a rotating disk medium during read and write operations; and

first and second rails, wherein each of the rails has a leading edge that faces into a general direction of relative motion between the slider and the medium, a trailing edge that faces away from the direction, and an air-bearing surface, the leading edge has a width that is substantially perpendicular to the direction, the trailing edge has a width that is substantially perpendicular to the direction, and the width of the leading edge is substantially narrower than the width of the trailing edge, each of the rails includes a V-shaped portion, a narrow part of the V-shaped portion is the leading edge and a wide part of the V-shaped portion is the trailing edge.

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The examiner relies on the following references:

Inumochi	4,939,603	Jul. 3, 1990
Morita et al. (Morita)	5,080,948	Jan. 14, 1992
Yoneoka	5,212,608	May 18, 1993
Nishimura (Japanese Kokai Patent Application) ¹	63-136370	Jun. 8, 1988
Watanabe et al. (Watanabe) (Japanese Kokai Patent Application) ²	02-101687	Apr. 13, 1990

Claims 5, 6, 9-11, 15, 16, 20, 21, 30-33, and 35-38, 40, 48-50, 54-61, 63, 64, 67, 68, and 70 stand rejected under 35 U.S.C. § 102. Claims 5, 6, 9-11, 15, 16, 20, 21, 30-33, and 35-38 are rejected under 35 U.S.C. § 102 as being anticipated by Watanabe. Claim 70 is rejected under 35 U.S.C. § 102 as being anticipated by Nishimura. Claims 40, 48-50, 54-61, 63, 64, 67, and 68 are rejected under 35 U.S.C. § 102 as being anticipated by Inumochi.

Claims 7, 8, 29, 34, 39, 66, and 69 stand rejected under 35 U.S.C. § 103. As evidence of unpatentability, the examiner relies on Watanabe and Inumochi against claims 7 and 8, Watanabe and Yoneoka against claims 29 and 34, Inumochi and Yoneoka against claim 66, and either of Inumochi or Watanabe combined with Morita against claims 39 and 69.

¹ With English translation provided by the USPTO, dated March 2003.

² With English translation provided by the USPTO, dated March 2003. A copy of the translations of Nishimura and Watanabe should mail as an attachment to this decision.

Claims 1-4, 17-19, 23-28, 41-47, 51-53, 62, and 65 have been canceled.

Claim 71 stands allowed. Claims 12 and 14 are objected to as depending from a rejected claim. The rejection of claims 13 and 22 has been withdrawn by the examiner subsequent to the final rejection, and the claims stand objected to as depending from a rejected claim.

We refer to the Final Rejection (Paper No. 6) and the Examiner's Answer (Paper No. 8) for a statement of the examiner's position and to the Brief (Paper No. 7) for appellants' position with respect to the claims which stand rejected.

OPINION

Grouping of Claims

Appellants submit a proposed grouping of claims. (Brief at 6.) However, we will select a representative claim, when appropriate, based on arguments presented in support of separate patentability. See 37 CFR § 1.192(c)(7). See also In re McDaniel, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) ("If the brief fails to meet either requirement [of 37 CFR § 1.192(c)(7)], the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim.").

Section 102 rejection of claims 5, 6, 9-11, 15, 16, 20, 21, 30-33, and 35-38 over

Watanabe

Claims 5 and 10 in view of Watanabe

"Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984).

In appellants' view, Watanabe Figure 3 shows a slider having two rails, with the leading edge of the respective rail being a pointed tip that is spaced from the body. Appellants contend that claim 5 distinguishes over the depicted structure in its requirement that the leading edge extends to the body. (Brief at 7.)

Instant claim 5 recites that each rail member has a leading edge "facing in the general direction of relative motion" between the transducer and the medium. The claim also requires, at least implicitly, that the leading edge have some measurable, nonzero width, because the "edge" has "a narrower width" as compared to the trailing edge of the rail.³ The claim is not specific, however, with respect to what portion of the leading edge having this "narrower width" is to be compared to the trailing edge width. Nor is the claim specific with respect to what portion of the leading edge may be "spaced from outer side surfaces" of the body.

³ The word "edge" may denote the line where an object or area begins or ends (i.e., a border), but also may denote a portion adjacent to a border (e.g., "walk on the edge of the deck"). See Webster's Ninth New Collegiate Dictionary at 396 (1990).

Contrary to the implication of appellants' position, the claim does not require that the "leading edge" as recited in claim 5 must correspond to only the "pointed tip" portion of a rail shown in Figure 3 of Watanabe. The "leading edge" portion of the rail, for all that the claim requires, does not distinguish over the lower aspect of the leading edge that extends to the body, in the orientation shown in Figure 3.

In our view, appellants' arguments are not commensurate with the broad scope of claim 5. Claims are to be given their broadest reasonable interpretation during prosecution. See In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550 (CCPA 1969).

Appellants argue, similarly, that claim 10 distinguishes over Figure 3 of Watanabe "[s]ince the leading edge extends to the body...." (Brief at 7.) We are thus not convinced that Watanabe fails to anticipate claim 10.

Since appellants have not relied on any limitations other than those contained in claims 5 and 10, we sustain the rejection of claims 5, 6, 9-11, 15, 16, 20, 21, 30-33, and 35-38 under 35 U.S.C. § 102 as being anticipated by Watanabe.

Section 102 rejection of claim 70 over Nishimura

Appellants argue that Nishimura fails to anticipate claim 70 because, in the reference, the leading edge of the rails is "a flat surface. Therefore, the leading edge is not the narrow part of a V-shaped portion." (Brief at 8.)

Appellants must be referring to the tapered part 3 of slider rail 1, shown in Figure 1 of Nishimura, as the "flat surface." As shown in Figure 1, and verified at the bottom of page 7 of the translation, the width of the slider rails at the trailing edge side 1B is greater than the width of the rails at the leading edge side 1A.

We agree with the examiner that the language of claim 70 does not require a vertex (i.e., does not require that the sides of the rail intersect as the sides of an alphabetical, typed "V"). The claim recites a "V-shaped" portion, which is broader than a perfect "V," and broad enough to be met by the general "V" shape of the rails shown in Figure 1 of Nishimura. Moreover, as in claim 5, instant claim 70 does not limit with specificity what portion of the structure may be considered the "leading edge." According to claim 70, a narrow part of the V-shaped portion is the "leading edge," and a wide part of the V-shaped portion is the trailing edge, which we find to be met by the structure depicted in Nishimura Figure 1.

We thus sustain the Section 102 rejection of claim 70 as being anticipated by Nishimura.

Section 102 rejection of claims 40, 48-50, 54-61, 63, 64, 67, and 68 over

Inumochi

Claims 40 and 61 in view of Inumochi

Appellants contend that claim 40 distinguishes over Inumochi because the claim recites that "the leading edge [of each of the rails] is narrower than the trailing edge."

Appellants take the "leading edge" of the rail in Inumochi to be the extreme edge of the slider shown in Figure 1 of the reference; i.e., "ridge 8 is spaced distance L_1 from the leading edge of the rail." (Brief at 9.)

Claim 40 recites that each of the rails has a leading edge that is part of a curved surface and faces into a general direction of relative motion between the slider and the medium. As shown in Figures 1 through 4 of Inumochi, and further described at columns 2 and 3 of the reference, the rails are comprised of air-bearing surface 2 and taper surface 3, which has a circular or parabolic profile. The leading portion of taper surface 3 meets the requirements of the claimed "leading edge." Claim 40 further requires that "the leading edge is narrower than the trailing edge," but does not specify the sections of the leading edge and the trailing edge that are to form the basis for the comparison. A dimension of taper surface 3, as shown in Figure 2A of Inumochi, is narrower in width than the trailing edge (near magnetic head 4; Fig. 1) of the rail.

Further, we consider appellants' observations with respect to claim 61 to be based on an overly narrow interpretation of the language. Appellants argue that Inumochi "discloses a rail in which the leading edge extends to the outer side surface of the slider body." (Brief at 9.) The claim does not distinguish, however, over the leading portion of taper surface 3 disclosed by Inumochi, which, due to its circular or parabolic profile, does not extend to the outer side surface of the slider body.

We thus sustain the Section 102 rejection of claims 40, 48-50, 54-61, 63, 64, 67, and 68 as being anticipated by Inumochi.

Section 103 rejections

In response to the various Section 103 rejections, appellants rely, in the main, on the purported distinguishing factors of base claims 10 and 40 with respect to the alleged deficiencies of Inumochi or Watanabe. We have discussed, supra, those purported distinguishing factors and the alleged deficiencies, and find appellants' position to be untenable. Appellants' arguments thus do not persuade us of error in the examiner's conclusions with respect to prima facie obviousness.

With respect to the rejection of claim 66, appellants further allege that taper 3 in Inumochi is "fundamental to the slider and its satisfactory operation." (Brief at 11.) Appellants do not provide any reasoning in support of the belief, other than asserting that the U-shaped portion provided by ridge 8 is spaced from the leading edge by taper 3. However, the "leading edge," as claimed, does not distinguish over the leading portion of taper 3. We thus disagree, in view of the actual requirements of claim 66, that ridge 8 is spaced from "the leading edge" by taper 3.

In any event, appellants also imply that the modification contemplated by the rejection would "render the prior art unsatisfactory for its intended purpose." That may be true, if one were to subscribe to the proposition that taper 3 is "fundamental" to the slider and its satisfactory operation in Inumochi.

However, claim 66 simply adds, to base claim 40, the limitation that each of the rails has "a uniform thickness" between the leading and trailing edges. We find it unnecessary to go beyond the four corners of the Inumochi reference to confirm prima

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facie unpatentability of the subject matter as a whole of instant claim 66.⁴ As shown in Figures 1 through 3 of Inumochi, each of the rails has a uniform thickness over the entire extent of air-bearing surface 2, as shown in the Figure 2D cross-section. Each rail of Inumochi thus has a uniform thickness "between the leading and trailing edges" as claimed.

We are therefore unpersuaded of patentability with respect to any of the claims rejected under Section 103. We sustain the Section 103 rejections of claims 7, 8, 29, 34, 39, 66, and 69.

⁴ A claim that is anticipated by a reference is also obvious under 35 U.S.C. § 103, since "anticipation is the epitome of obviousness." See, e.g., Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548, 220 USPQ 193, 198 (Fed. Cir. 1983); In re Fracalossi, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982); In re Pearson, 494 F.2d 1399, 1402, 181 USPQ 641, 644 (CCPA 1974).

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CONCLUSION

The rejections of claims 5, 6, 9-11, 15, 16, 20, 21, 30-33, 35-38, 40, 48-50, 54-61, 63, 64, 67, 68, and 70 under 35 U.S.C. § 102 are affirmed. The rejections of claims 7, 8, 29, 34, 39, 66, and 69 under 35 U.S.C. § 103 are affirmed. The examiner's decision in rejecting claims 5-11, 15, 16, 20, 21, 29-40, 48-50, 54-61, 63, 64, and 66-70 is thus affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

Jerry Smith
JERRY SMITH

JERRY SMITH
Administrative Patent Judge

Michael R. Fleming
MICHAEL R. FLEMING

MICHAEL R. FLEMING
Administrative Patent Judge

Howard B. Blankenship

HOWARD B. BLANKENSHIP
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